

SHUB, M.G., kandidat meditsinskikh nauk; VOL'FKOVICH, M.I., professor, direktor.

Plastic surgery and postoperative therapy in radical ear surgery. Vest.oto-
rin. 15 no.4:66-69 Jl-Ag '53. (MLRA 6:9)

1. Klinika bolezney ukha, gorla i nosa Saratovskogo meditsinskogo instituta.
(Ear--Surgery) (Surgery, Plastic)

SHUB, M.G.

VOL'YKOVICH, M.I., professor; SHUB, M.G., kandidat meditsinskikh nauk

Role of the upper respiratory tract in poliomyelitis diagnosis
[with summary in English]. Vest. oto-rin. 19 no.2:40-43 Mr-Ap '57.

1. Iz kliniki bolezney ukha, gorla nosa Saratovskogo meditsinskogo
instituta.

(RESPIRATORY TRACT, pathol.

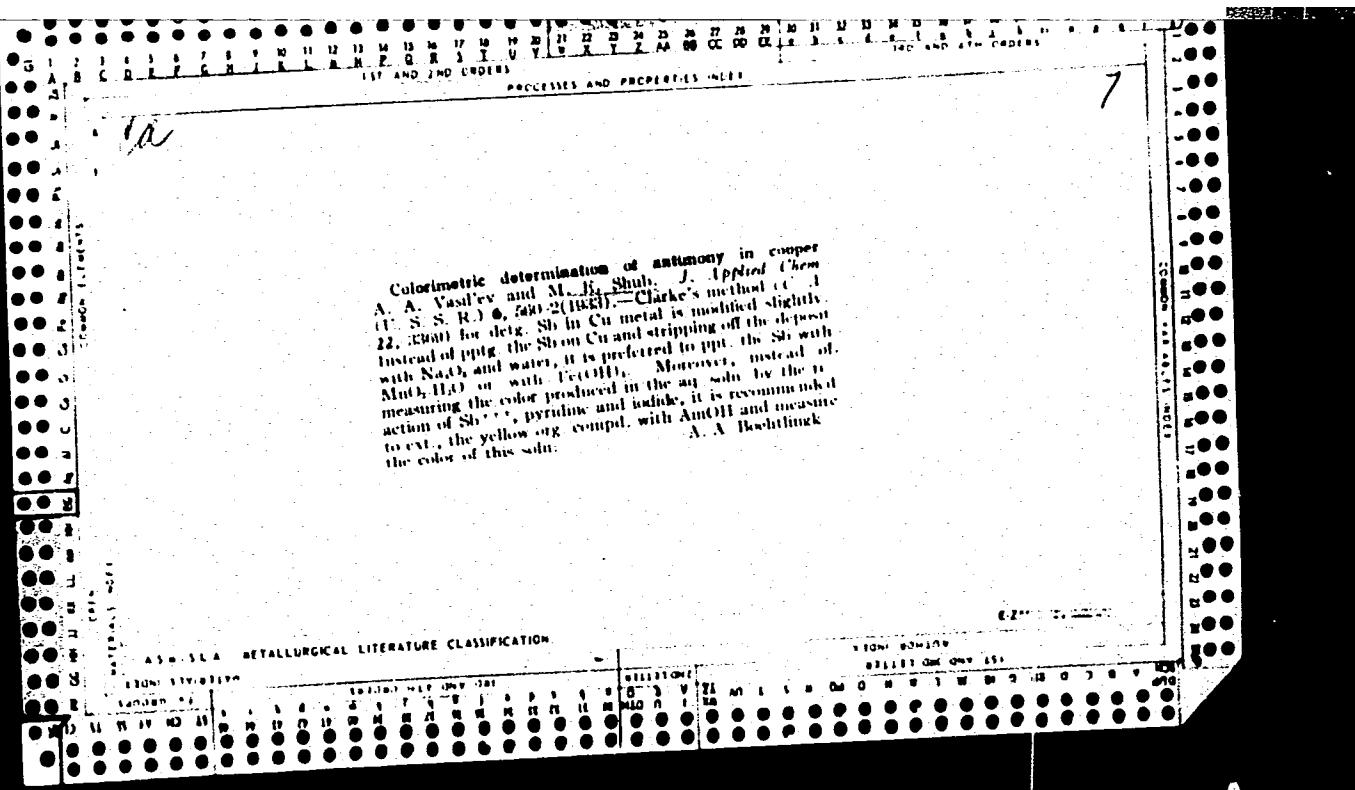
changes, diag. value in polio. (Eng))

(POLIOMYELITIS, diag.

role of changes in upper resp. tract (Eng))

SHAPIRO, M.Ya., SHUB, M.G., TURKINA, L.P.

Professor Miron Isaakovich Vol'fkovich, on his 60th birthday.
Vest.oto-rin. 20 no.6:125-126 N-D '58 (MIRA 11:12)
(VOL'FKOVICH, MIRON ISAAKOVICH, 1898-)



ca

7

Titration of sodium sulfide with potassium ferricyanide
A. A. Vasil'ev and M. P. Shub. *J. Applied Chem.* U.S.S.R., 6, 988-905 (1933). In the titration of Na₂S with K₃Fe(CN)₆, a rough titration is made, and then in a second analysis the vol. of reagent used in the first titration is added at once and then enough more is added to give the correct end point. The results are good but lower than the iodometric values.
A. A. Bochthinsk

450 SLA-METALLURGICAL LITERATURE CLASSIFICATION

450	SLA	METALLURGICAL LITERATURE	CLASSIFICATION
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450	SLA	METALLURGICAL LITERATURE	CLASSIFICATION
450	SLA	METALLURGICAL LITERATURE	CLASSIFICATION

7

Determination of free acid in ferric salts. M. E. Shub and I. E. Orlov. *Zapovedskaya Lab.*, 7, 923-4 (1958). FeCl₃ in the soln. is reduced with a slight excess of 0.1 N Na₂S₂O₃ and the free acid is titrated with Na₂CO₃ to methyl orange. The reduction can be accelerated by adding 0.5 ml. of 1% CuSO₄ to 23 ml. of about 0.1 N Fe salt. The results are practically not affected by the min. hydrolysis of Fe salts. Excellent results are reported with prep'd. mixts. of FeCl₃ and HCl. Chas. Blane.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

E304.514-6114

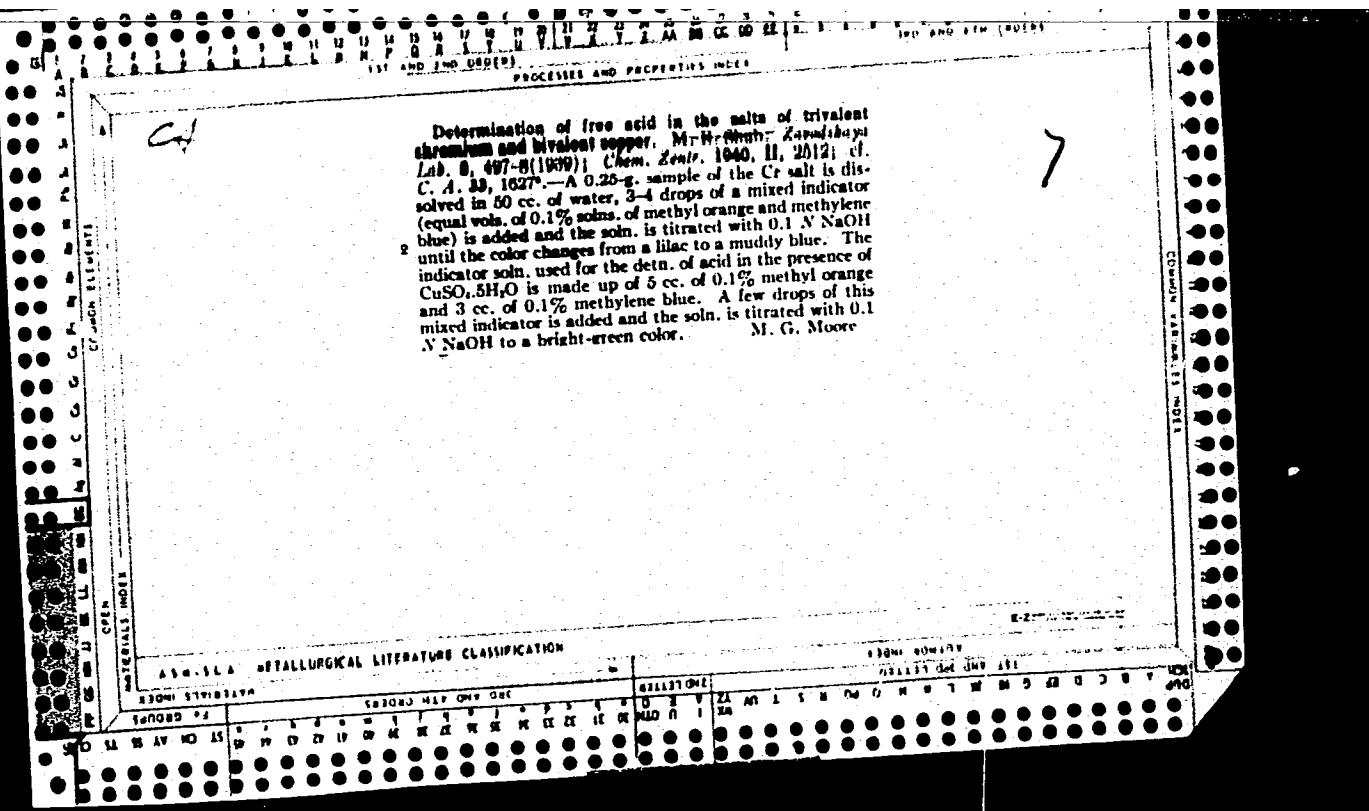
147065 24

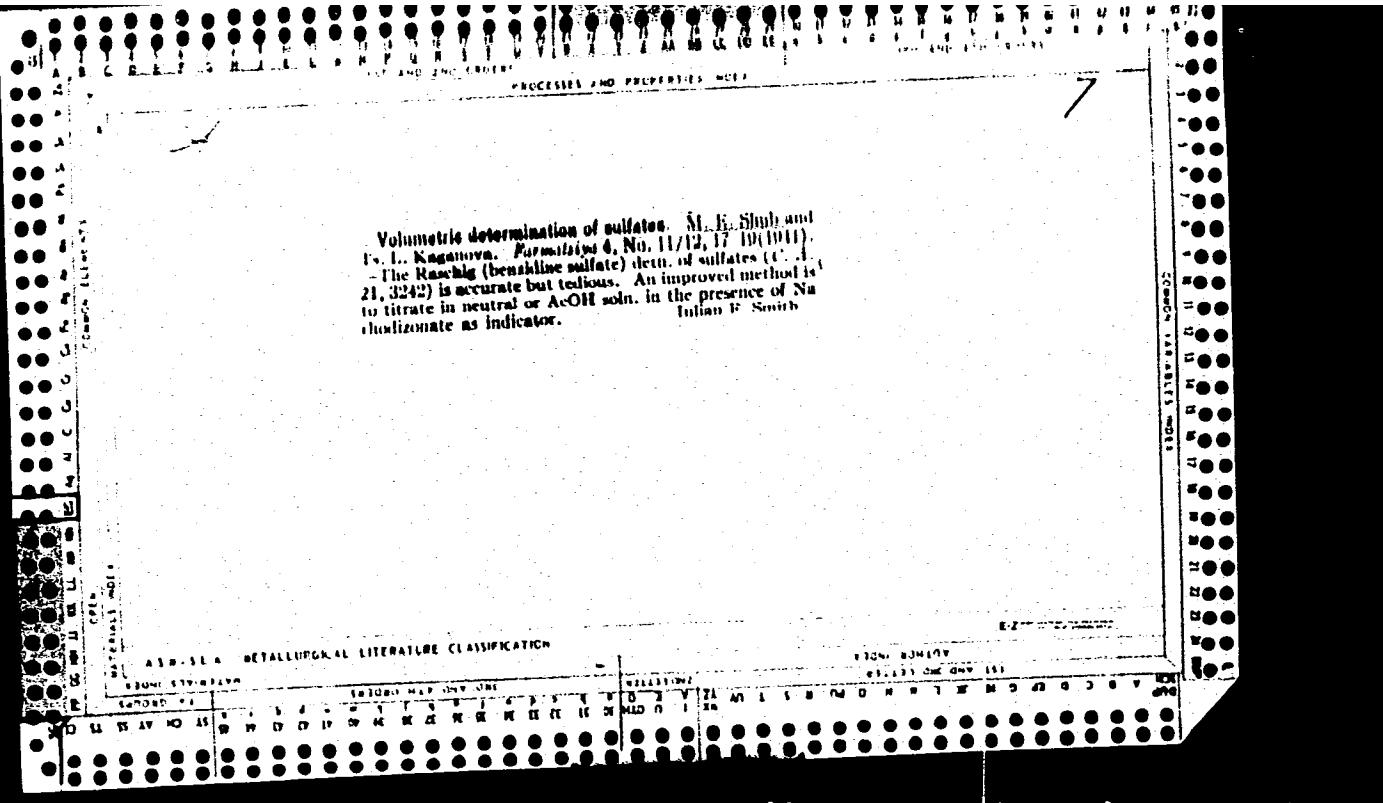
131042 447 000 000

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131042 447 000 000

E-Z





SHUB, M.E.

Rapid determination of synestrol. M. E. Shub and A. S. Vasilenko. *Avtchern Deld* 5, No. 3, 25-011500. — Synestrol, 0.05-0.07 g. in 25 cc. alc., is mixed with 25 cc. of *N* KBrO₃ and 1 g. KBr and kept for 15 min. in a water bath at 8-10°. After addn. of 25 cc. of 10% H₂SO₄ cooled to 8-10°, the mixt. is carefully shaken, 1 g. of KI and 20 cc. water are added and the liberated I is titrated in the usual way after 5 min. One cc. 0.1*N* KBrO₃ = 0.003379 g. synestrol. When directions are carefully followed, no bromination of alc. takes place. A. S. Mirkin

✓ 1934. The volumetric determination of Analgin (sodium 2,2-dimethyl-1-phenylpyrazol-5-on-4-yl-N-methylamino-methanesulfonate). M. E. Shub and N. A. Kohareva (All Union Ordzhonikidze Pharmacol. Res. Inst.), *Apotheker Zeit.* 1956, 6 (4), 48-49.—Analgin can be determined iodimetrically without the use of an indicator by the following method. *Procedure*—A weighed sample (0.4 g) is dissolved in 5 to 6 ml of water in a 100- or 150-ml conical flask at a temp. > 20° and the soln. is immediately titrated against 0.1 N iodine. A pink colour is first produced and this gradually disappears when about 20 ml of iodine soln. has been added; the titration is continued until the soln. assumes a permanent yellow colour. E. HAYES

2

SHUB, M.Ye.; VOLKOVA, N.S.

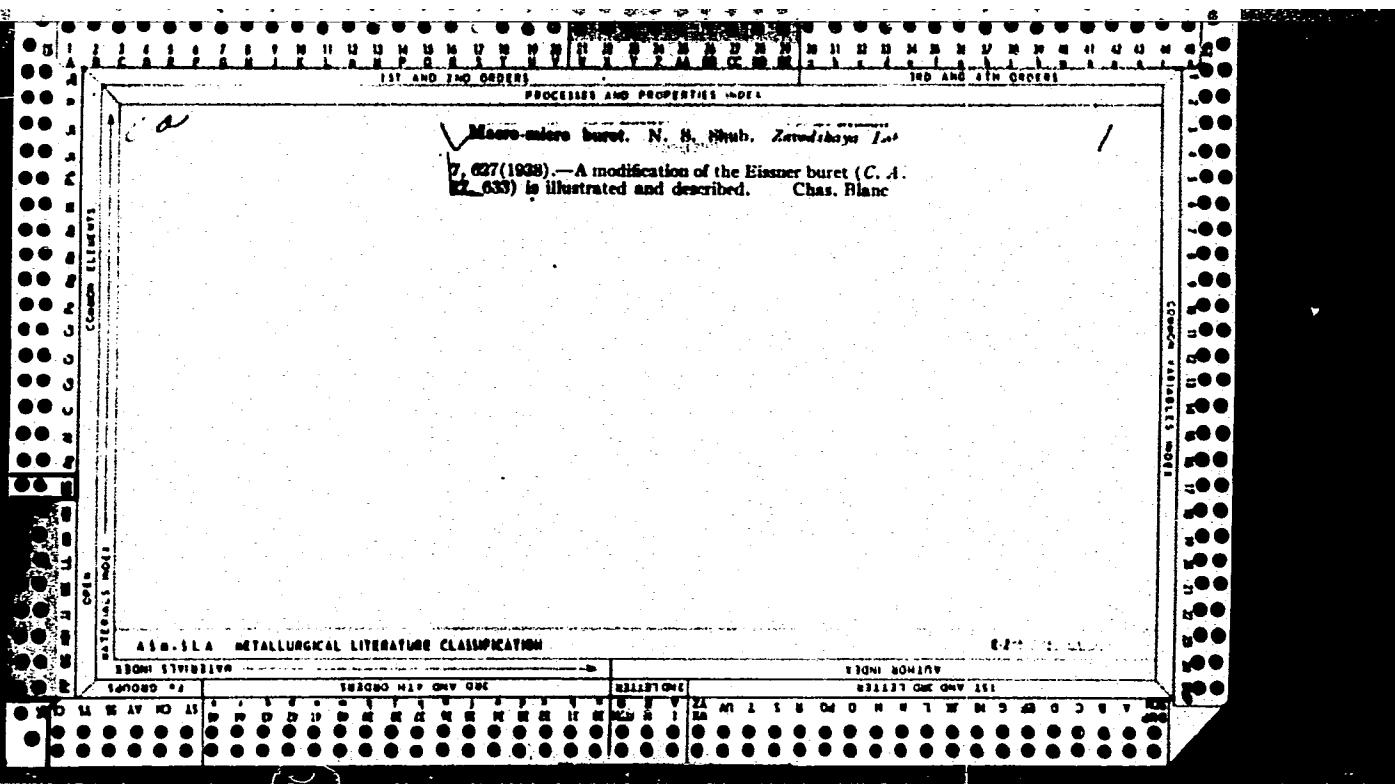
Quantitative determination of phthivazid. Apt.delo 6 nc.6:59-60
N-D '57. (MIRA 10:12)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni S.Ordzhonikidze.
(ISONICOTINIC ACID--ANALYSIS)

SHUB, M.Ye.; TSITRIN, Ye.N.

Quantitative determination of theophylline and theobromine. Med.prom.
11 no.12:43-44 D '57. (MIR 11:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S.Ordzhonikidze.
(THEOPHYLLINE) (THEOBROMINE)



Equilibrium constant between barium oxalate and sulfate ion. N. S. Shub. *Zarodskaya Lab.* 7, 1078-81 (1938).—A polemic with Tamanav and Pilipenko (*C. A.* 31, 1727). Chas. Blanc

7

AMSLA METALLURGICAL LITERATURE CLASSIFICATION

1

SHUB, N.S.

USSR/Chemistry - Reaction processes

Card : 1/1 Pub. 116 - 5/20

Authors : Shub, N. S.

Title : Spatial expansion of the oxalate oxidation reaction by permanganate

Periodical : Ukr. khim. zhur. 20, Ed. 4, 370 - 372, 1954,

Abstract : The spatial expansion of oxalate oxidation by permanganate was investigated in the presence of mixtures containing equal concentrations of $C_2H_2O_4 \cdot 2H_2O$, H_2SO_4 and $KMnO_4$. It was established that the reaction of oxalate oxidation with permanganate, which appears to be autocatalytic in relation to the lower degrees of Mg oxidation, may expand linearly. The rate of motion of the linear reaction front and its dependence upon the acidity of the solution, are explained. Two USSR references (1954). Table; drawings.

Institution : The Polytechnicum, Kiev

Submitted : December 2, 1953

SHUB, N. S.

USSR/ Chemistry - Oxidation reaction

Card 1/1 Pub. 22 - 27/54

Authors : Epik, P. A., and Shub, N. S.

Title : Frontal course of arsenite oxidation reaction with iodate

Periodical : Dok. AN SSSR 100/3, 503-506, Jan 21, 1955

Abstract : Experimental data are presented regarding the frontal course, mechanism, autocatalysis and origin of the arsenite oxidation reaction with iodate. In the part of the solution through which the reaction front has already passed the oxidation reaction was observed to continue until its termination and was very insignificant in the remaining parts. When the reaction front originates elsewhere than on the surface of the solution it was seen suddenly shifted upwards (in the reactor) with a speed of 80-169 mm/min. Four USSR references (1906-1952). Illustrations.

Institution : The Polytechnicum, Kiev

Presented by : Academician A. N. Frumkin, November 23, 1954

SHUB, N.S.

Fractional method for the detection of cadmium ions. Zhur.anal.
khim. 11 no.2:251 Mr-Ap '56. (MLRA 9:8)

1. Kiyevskiy politekhnicheskiy institut.
(Cadmium)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3

Shub / S

Fine detection of cadmium. N. S. Shub. J. Anal.
Chem. U.S.S.R. 11, 255 (1950) (Engl. Translation). See
C.A. 50, 14437a.

B.M.R. 1 PM LFH

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3"

SHUB, N.S.

EPIK, P.A., dots., kand.khim.nauk; SHUB, N.S., kand.khim.nauk

Iodine determination in the presence of bromides and chlorides.
(MIRA 11:3)
Izv. KPI 20:95-99 '57.
(Iodides) (Bromides) (Chlorides)

SHUB, N. S.

73-1-5/26

AUTHOR: Shub, N. S.

TITLE: Effect of Physico-Chemical Factors on the Frontal Course
of the Oxidation Reactions of Arsenite by Iodate.
(Vliyanie Fiziko-Khimicheskikh Faktorov na Frontal'noye
Tcheniye Reaktsii Okisleniya Arsenita Iodatom.)

PERIODICAL: Ukrainskiy Khimicheskiy Zhurnal, 1957, Vol. 23, No.1,
pp. 22 - 26 (USSR).

ABSTRACT: Autocatalytic oxidation reactions of arsenite by iodate
(Refs. 1 and 2) and oxalate by permanganate (Ref. 3) were
shown to proceed in a frontal (linear) way under given
conditions. Investigations also proved that linear
reactions take place during the oxidation of thiocyanate,
nitrite and sulphite with iodate. The influence of various
factors on the reaction course was investigated as well as
the possibility of bringing this reaction about under less
favourable conditions. Table 1. shows the dependance of
the velocity of the linear movement of the reactions on
the concentration of the reagents. Experiments were carried
out in a cylinder of 13 mm diameter, at 22 - 23° C and an
initial pH 3.0. The pH after the reactions was found to
have decreased in all cases to 1.7 - 1.8 (table 1.) The
influence of the initial concentration of H-ions on the

Card 1/3

73-1-5/26

Effect of Physico-Chemical Factors on the Frontal Course of the
Oxidation Reactions of Arsenite by Iodate.

frontal (velocity) of the reaction is shown in figure 1. The dependance of the velocity of the linear reaction on the temperature appears as a linear function. Figure 2 indicates the different reaction velocities according to the depth of the vessel. It increases from the top downwards with the concentration of the reagents and with temperature and with decreasing pH of the compounds. It is independent from the diameter of the reaction vessel. Theoretical and practical proofs show that at pH values exceeding 8.6 the reactions can be arrested. The reaction can proceed linearly in the presence of buffer solutions if the buffer (with regard to the H⁺-ions) is insufficient to prevent the creation of the pH necessary for the speedy course of the reaction. Results of investigations of the influence of the buffer solutions on the oxidation reactions are tabulated in table 2. There are 2 graphs, 2 tables and 3 Slavic references.

SUBMITTED: May, 17, 1956.

ASSOCIATION: Kiyev Polytechnical Institute, Chair of Analytical Chemistry. (Kiyevskiy Politekhnicheskiy Institut,

Card 2/3

73-1-5/26
Effect of Physico-Chemical Factors on the Frontal Course of the
Oxidation Reactions of Arsenite by Iodate.

Kafedra Analiticheskoy Khimii).

AVAILABLE: Library of Congress

Card 3/3

SHUB, N.S.

Determination of halide ions in bivalent mercury compounds.
Zhur. anal. khim. 18 no.1:141-142 Ja '63. (MIRA 16:4)

1. Kiev Polytechnical Institute.
(Mercury halides)

SHUB, R.I.; BABAK, L.N.

Auto-hemo-penicillin therapy in otolaryngology. Vest. otorinolar.,
Moskva 14 no.1:80 Jan-Feb 52. (CIML 21:4)

1. Of the First Polyclinical Division of Sverdlovsk Municipal Hospital
No. 12.

SHUB, R.L., professor.

Use of furacillin in obstetrics and gynecology. Akush.i gin. no.2:
24-27 Mr-ap '54. (MIRA 7:6)

1. Iz akushersko-ginekologicheskoy kliniki (zaveduyushchiy - professor
R.L.Shub) Rizhskogo meditsinskogo instituta.
(Furaldehyde) (Genitourinary organs--Diseases)

Country : USSR
Category: Human and Animal Physiology. Internal Secretion.
Sexual Glands

Abs Jour: RZhDiol., N. 19, 1958, 89095

Author : Shub, R.L.; Dukhova, A.M.

Inst :
Title : The Effect of Vitamins C and B₁ in Combination with
Folliculin on the Growth of the Uterus of Infantile
Animals (Experimental Investigation)

Orig Pub: v sb. Zdravookhr. Sov. Latvii. II. Riga, 1954,
83-93

Abstract: Immature female rats were injected subcutaneously,
for a period of 3 days, with folliculin (300 mouse
unit) alone or together with vitamin B₁ (90 mg) or

Card : 1/2

SHUB, R.L., prof.

Role of vitamins in obstetrics and gynecology [with summary in English]. Akush. i gin. 33 no.6:3-11 N-D '57. (MIRA 11:3)

1. Iz kafedry akusherstva i ginekologii (zav.-prof. R.L.Shub)
Rizhskogo mediteinskogo instituta.

(PREGNANCY

vitamin ther. in, review)

(VITAMINS, ther. use

in pregn., review)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3

SHUB, R.L., prof., zasluzhennyj deyatel' nauki Latviyskoy SSR

"Problems in obstetrics and gynecology" ("Trudy" of the Stalinabad
Medical Institute, vol.34). Reviewed by R.L. Shub. Akush.i gin. 35
(MIRA 13:2)

S-0 '59.

(OBSTETRICS) (GYNECOLOGY)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3"

SHUB, R.

Significance of vitamins and nitrofurans in the physiology and pathology
of the female organism. I. Concerning the significance of vitamins in
obstetrics and gynecology. Vestis Latv ak no.12:137-146 '60.
(EEAI 10:9)

(VITAMINS) (NITROFURAN) (WOMAN) (OBSTETRICS)
(GYNECOLOGY)

SHUB, R.L., prof.

The significance of nitrofurans in obstetrics and gynecology.
Akush. i gin. 36 no. 5:9-13 S-0 '60. (MIRA 13:11)

1. Iz kafedry akusherstva i ginekologii (zav. - zasluzhennyj
deyatel nauki Latvyskoy SSR prof. P.L. Shub) Rizhskogo meditsin-
skogo instituta (dir. - prof. V.A. Kal'berg).
(FURAN) (OBSTETRICS) (GYNECOLOGY)

SHUB, Rafail L'vovich, zasluzhennyy deyatel' nauki Latvlyanskoy SSR, prof.;
GRANAT, N.Ye., red.; ZAKHAROVA, A.I., tekhn.red.

[Importance of vitamins and nitrofurans in obstetrics and
gynecology] Znachenie vitaminov i nitrofuranov v akusherstve
i ginekologii. Moskva, Medgiz, 1961. 157 p.

(VITAMINS) (FIRAN) (OBSTETRICS)
(GYNECOLOGY)

(MIRA 15:4)

SHUB, R.L., prof., zasluzhennyj deyatel' nauki Latvijskoy SSR (Riga)

Role of vitamins in obstetrics and gynecology. Sov. zdrav. 20
no.6:22-25 '61. (MIRA 14:7)
(VITAMIN THERAPY) (GYNECOLOGY) (PREGNANCY)

GURTOVOY, L.Ye., prof.[deceased]; IVANITSKAYA, Ye.P., doktor med. nauk; MAZHBITS, A.M., prof.; PREYSMAN, A.B., prof.; STARTSEVA, L.N., kand. med. nauk; TRUYEVITSEVA, G.V., kand. med.nauk; SHUB, R.L., zasl. deyatel' nauki Latviyskoy SSR prof.; YAGUNOV, S.A., prof.[deceased]; PERSIANOV, L.S., prof., otv. red.; ZHMAKIN, K.N., prof., zasl. deyatel' nauki RSFSR, red.; RYABOV, G.Z., red.; ROMANOVA, Z.A., tekhn. red.

[Multivolume manual on obstetrics and gynecology] Mnogotomnoe rukovodstvo po akusherstvu i ginekologii. Moskva, Medgiz. Vol.4. Book 1. [General gynecology] Obshchaya ginekologiya. 1963. 674 p. (MIRA 16:9)

1. Chlen-korrespondent Akademii meditsinskikh nauk (for Yagunov, Persianinov).
(GYNECOLOGY)

SHUB, Iaroslav Ilyevich, prof.; NEYMAN, M.I., red.

[Vitamins for the mother and child] Vitaminy materi i rebenku. Moskva, Meditsina, 1964. 15 p. (MIRA 17:6)

SHUB, R.L., prof. (Riga)

Use of vitamins in obstetrics and gynecology. Akush. i gin. 40
no.2:111-117 Mr-Ap '64. (MIRA 17:11)

SHUB, Rafail L'vovich; NEYMAN, M.I., red.; PREYYEMAN, A.B., red.

[What a woman should know about her health] Chto dolzhna
znat' zhenshchina o svoem zdrorov'e; nauchno-populiarnaia
meditsinskaya literatura. Moskva, Meditsina, 1965. 25 p.
(MIRA 19:1)

SHUB, V. S.

USSR/ Geology

Card 1/1 Pub. 22 - 27/43

Authors : Burdina, O. V.; Sigov, A. P.; and Shub, V. S.

Title : Kainosite effusions in Chelyabinsk

Periodical : Dok. AN SSSR 106/1, 103-105, Jan 1, 1956

Abstract : Geological data are presented on the kainosite effusive rock deposits of the Permian-Triassic eras discovered in the Chelyabinsk region USSR. Four USSR references (1949-1954). Map.

Institution : Ural Geological Office of the Ministry of Geology USSR

Presented by: Academician D. S. Korzhinskiy, August 2, 1955

SHUB, V.S.

Conference of the Ural geomorphologists. Izv. AN SSSR. Ser.
geog. no. 4:164-166 Jl-Ag '61. (MIRA 14:?)
(Ural Mountain region--Geomorphology--Maps)

L 62710-65 EPF(c)/ENG(v)/EPA(w)-2/EWP(j)/EWP(k)/EWA(c)/ENT(m)/EWP(i)/EWP(b)/T/
EWP(e)/EWP(t) Pe-4/Pc-4/Pf-4/Pg-4/Pr-4/Ps-4 RM/NH/NW/JD
ACCESSION NR: AP5019029 UR/0286/65/000/012/0063/0063
666.1.037.5: 53
625.-426

AUTHOR: Shub, V. Z.

TITLE: Method of obtaining a glass-insulated microwire. Class 32, No. 172003 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 63

TOPIC TAGS: wire, microwire, metal microwire, glass insulated microwire, micro-wire drawing

ABSTRACT: This Author Certificate introduces a method of obtaining a glass-insulated microwire by stretching an HF-heated glass tube containing metal. To help regulate the thickness of glass insulation, the tube is additionally heated by gas flame at the point of cross-section change. Orig. art. has: 1 figure. [ND]

ASSOCIATION: Nauchno-issledovatel'skiy institut metiznoy promyshlennosti (Scientific Research Institute of Metalware Industry)

SUBMITTED: 07Apr64

ENCL: 00

SUB CODE: MM, M

NO REF Sov: 000

OTHER: 000

ATD PRESS: 4064

Card 1/1KC

DYNIN, M.Ye.; SHUB, Ye.L.

Work in lowering the incidence of quinsy. Sov.zdrav. 15 no.5 supplement:
4-6 0 '56. (MLB 10:1)

1. Medsanchast' Uralmashzavoda, Sverdlovsk.
(TONSILLITIS, prev. and control
quinsy)

PUGACH, Isay Markovich; POLESIN, Yakov Lazarevich; SHUB, Yevsey Yefimovich;
SOBOLEV, G.G., redaktor; GRICHAYENKO, M.I., redaktor; ALADOVA, Ye.I.,
tekhnicheskiy redaktor; PROZOROVSKAYA, V.L., tekhnicheskiy redaktor.

[Mine rescuing and the prevention of mine accidents] Gornospasatel'noe
delo i preduprezhdenie shakhnykh avari. Moskva, Ugletekhizdat, 1955.
398 p. (Mine rescue work)

SHUGA, V. I.

SHUGA, V. I., BULGAROV, Yu. A. -- "JETTING MOMENTS OF INERTIA OF AXI-SYMMETRICAL SHELLS." SUBMITTED TO THE DEPARTMENT OF THE STATE COMMITTEE FOR DEFENSE OF THE USSR, MILITARY AERONAUTICAL ENGINEERING ACADEMY (PROF. N. YE. CHUROVSKY) AS A DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCES

DATE: 15 JANUARY 1952

ZALGALLER, V.A. (Leningrad); RUDENKO, N. (Moskva); DAVYDOV, U. (Gomel');
RABINOVICH, V. (Petropavlovsk-Kazakhstanskiy); BESKIN, L.N. (Moskva);
TANATAR, I.Ya. (Moskva); SKOPETS, Z.A. (Yaroslavl'); DUBNOV, Ya.S.
(Moskva); GEL'FOND, A.O. (Moskva); ROBINSON, R.M. (SSHA); BALK,
M.B. (Smolensk); SHUB-SIZONENKO, Yu.A. (Moskva)

Solutions to the problems. Mat. pros. no.5:261-274 '60.
(MIRA 13:12)
(Mathematics—Problems, exercises, etc.)

PROKHOROV, V.M., dots.; SHUBA, A.I., assistent.

Primary tumors of the spleen. Khirurgiia 34 no.12:75-77 D '58.
(MIRA 12:1)

1. Iz gospital'noy khirurgicheskoy kliniki (dir. I.M. Strel'mashonok)
Minskogo meditsinskogo instituta.
(SPLIEN, neoplasms
primary (Rus))

SHUBA, G.I.

We improve labor organization daily. Avtom., telem. i sviazi
7 no.11:20-23 N '63. (MIRA 16:12)

1. NachalUnik Korostenskoy distantaii signalizatsii i svyazi
Yugo-Zapadnoy dorogi.

NARBUTT, K.I.; LAPUTINA, I.P.; SHUBA, I.D.; KARDAKOV, K.A.; SAMOYLOV,
G.P.

Isotopic composition of ore lead and age of minerals con-
taining U, Th, and Pb according to the data of mass spectro-
metry and X-ray spectrum. Trudy IGEM no.28:122-137 '59.

(MIRA 13:4)

(Lead--Isotopes) (Geological time) (X rays)

SEMELEV, Ye.I.; SHUBA, I.D.

Geological age of the Lovozero and other alkaline massifs of
the Kola Peninsula. Trudy IGSM no.28:138-141 '59.

(MIRA 13:4)

(Kola Peninsula--Rocks, Igneous)
(Geological time)

S/058/62/000/004/017/160
A058/A101

AUTHOR: Shuba, I. M.

TITLE: Proton-neutron scattering on the basis of the pair variant of pion theory

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 42 - 43, abstract 4A331 ("Dokl. i soobshch. Uzhgorodsk. un-t. Ser. fiz.-matem. n.", 1961, no. 4, 33 - 36)

TEXT: The author calculates the cross section of p-n scattering for the case of pair coupling with a mesonic field in a first nonvanishing approximation of modified perturbation theory (RZhFiz, 1958, no. 2, 2693). The numerical values of the resultant effective cross section practically do not differ from the results of conventional perturbation theory for the standard variant of interaction.

[Abstracter's note: Complete translation]

A. Brodskiy

Card 1/1

S/044/62/000/004/076/099
C111/C222

AUTHORS: Kushtan, V.I., Lomsadze, Yu.M., Shuba, I.M.

TITLE: On the theory of generalized functionals

PERIODICAL: Referativnyy zhurnal, Matematika, no. 4, 1962, 87,
abstract 4B412. ("Dokl. i soobshch. Uzhgorodsk. un-t. Ser.
fiz.-matem. n.", 1961, no. 4, 116 - 121)

TEXT: In quantum-field theory there exist so-called singular
functionals, e.g. the δ -functional $\delta [N(x) - N_0(x)]$ with the property
that

$$\int \delta N(x) \delta [N(x) - N_0(x)] = 1 ,$$

if the functional (continuous) integration extends over an open set of
functions containing $N_0(x)$. A definition of singular functionals is given
in the following way (as in the theory of generalized functions): The
singular functional (or, as the author terms it, hyperfunctional) is a

Card 1/2

On the theory of generalized functionals S/044/62/000/004/076/099
C111/C222

linear continuous functional over the space of basis functionals (the infinitely often differentiable and finite functionals with natural topology). The support of the singular functionals is defined, and a procedure is developed to regularize divergent functional integrals in which the functional in the integrand has in discrete "points".

[Abstracter's note : Complete translation.]

Card 2/2

KOVAL'CHUK, A.Ye.; LOMSADZE, Yu.M., dotsent; SHUBA, I.M.

Use of the method of strong coupling in solving Soln's model.
Dokl. i soob. UzhGU. Ser. fiz.-mat. i ist. nauk no.5:26-30 '62.
(MIRA 17:9)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3

SHUBA, I.M.; ROMANKO, G.D.; LOMSADZE, Yu.M., dotsent; KUSHTAN, V.I.

On the $\mu^- + p \rightarrow e + p$ process. Dokl. i soob. UzhGU.
Ser. fiz.-mat. i ist. nauk no.5:24-26 '62. (MIRA 17:9)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3"

L 30013-65 EWT(1) IJP(c)
ACCESSION NR: AP5000621

8/0185/64/009/011/11/6/1184

20
18
13

AUTHOR: Lomsadze, Yu. M.; Khimich, I. V.; Shuba, Y. M. (Shuba, I.M.)

TITLE: Structure of the g-plane in the relativistic Schrodinger theory

SOURCE: Ukrayins'kyi fizy*chny* zhurnal, v. 9, no. 11, 1964, 1176-1184

TOPIC TAGS: Schrodinger theory, relativistic particle, particle scattering, potential scattering, coupling constant, scattering amplitude

ABSTRACT: This is a continuation of earlier work by the authors on the partial amplitude for scattering by a nonrelativistic Yukawa potential (Preprint, Uzhgorod University, R-1, 1963; Nuclear Phys., in press) and on Bethe-Salpeter scattering (Preprint, Uzhgorod University, R-2), and the purpose of the investigation was to check whether the structure of the g-plane does not experience appreciable changes when the scattering particle possesses spin. An analysis is presented of the structure of the g-plane of the partial amplitude of quantum-mechanical scattering of a relativistic spinless particle by a Coulomb potential, and it is shown that the most characteristic elements of the g-plane structure for this potential will be characteristic also of the case of a Yukawa potential.

Cord 1/2

L 30013-65

ACCESSION NR: AP5000621

2

The nature of the motion of the poles of the partial wave amplitude is studied along two sheets of its g-plane, with variation of the energy along the real axis in the case of an arbitrary physical $\gamma = \beta + 1/2$. The nature of the motion of the poles of this amplitude is also studied along two sheets of its E-plane with variation of g along the real axis. A detailed physical interpretation is given of both the singularities of the partial wave amplitude and of the singularities of the trajectories in the g- and E-planes. The analytic properties of the amplitudes of the trajectories are considered also in the nonrelativistic limit. The determination of the g-plane structure makes it possible to employ the Mittag-Leffler procedure for an effective calculation of this amplitude, using information contained in the finite number of coefficients of its formal perturbation-theory series for an arbitrary value $g \neq \gamma$. "The authors thank Professor N. N. Meyman for valuable remarks." Orig. art. has: 6 figures and 9 formulas.

ASSOCIATION: Uzhgorods'kyj derzhuniversytet (Uzhgorod State University)

SUBMITTED: 15Feb64

ENCL: 00

SUB CODE: NP, CP

MR REV Sov: 005

OTHER: 013

Card, 2/2

L 2712-66

ACCESSION NR: AP5017179

UR/0139/65/000/003/0086/0094

AUTHOR: Lomsadze, Yu. M.; Khimich, I. V.; Shuba, I. M.

TITLE: On the motion of the poles of a quantum mechanical partial amplitude in the complex plane of the coupling constant

SOURCE: IVUZ. Fizika, no. 3, 1965, 86-94

TOPIC TAGS: quantum physics, scattering amplitude, analyticity, moving pole method

ABSTRACT: The authors investigate the analytic properties of a quantum-mechanical partial amplitude $f_g(\ell, k)$ in the complex plane of the coupling constant for a broad class of potentials, satisfying the standard conditions (approaching zero like $1/r$ as r goes to infinity, like $1/r^2$ as r goes to zero, and finite for all other values of r) (ℓ --angular momentum, $k^2 = 2mE$, m --mass, E --energy, t --time, g --coupling constant). It is shown that in the vicinity of the point $g = 0$ there is a small region which is free of any singularities of the partial amplitude. This makes it possible to employ the Mittag-Leffler method for an effective calculation of $f_g(\ell, k)$ and consequently to determine the total amplitude $T_g(k, t)$ for arbitrary values of g with any prescribed degree of accuracy, by using information contained in the coefficients of a finite number of terms of the perturbation-method series for $f_g(\ell, k)$. Orig. art. has: 3 figures and 29 formulas.

Card 1/2

L 2712-66
ACCESSION NR: AP5017179

ASSOCIATION: Uzhgorodskiy gosuniversitet (Uzhgorod State University)
SUBMITTED: 310ct63 ENCL: 00 SUB CODE: GP
NR REF Sov: 013 OTHER: 012

KC
Card 2/2

Author: V. A. Slobodkin, L.V.; Shchita, I.M.

On the distribution of the poles of the quantum mechanical partial amplitude
in the complex plane of the coupling constant. Izv. vys. ucheb. zav.;
Fiz. 3 no.3:86-94 '65. (MIRA 18:9)

• Uzhgorodskiy gosudarsivenny universitet.

BYKOVA, I.V., st. nauchn. sotr.; STEPANOV, A.S., st. nauchn. sotr.; SOLOV'YEV, A.P.; AFANAS'YEVA, A.A., st. nauchn. sotr.; BOGATYREVA, L.M.; LIFENTSOVA, A.S.; SHUBA, L.S., red.; TIMOFEYeva, Ye.A., red.

[Food product substitutes in the textile industry] Zameniteli pishchevykh produktov v tekstil'noi promyshlennosti. Moskva, 1963. 67 p. (MIRA 17:12)

1. Moscow. Tsentral'nyy institut nauchno-tehnicheskoy informatsii legkoy promyshlennosti. 2. Rukovoditel' laboratorii spetsial'noy otdelki Ivanovskogo nauchno-issledovatel'skogo instituta khlopchato-bumazhnoy promyshlennosti (for Solov'yev). 3. Ivanovskiy nauchno-issledovatel'skiy institut khlopchato-bumazhnoy promyshlennosti (for all except Shuba, Timofeyeva).

SHUBA, M.F.

Functional state of the vasmotor center during bloodletting [with
summary in English]. Fiziol.zhur. [Ukr] 3 no.4:91-100 Jl-Ag '57.
(MIRA 10:9)

I. Institut fiziologii im. O.O.Bogomol'tsya AN USSR, laboratoriya
fiziologii krov'ebygu i dikhannya.
(BLOODLETTING) (REFLEXES)

SHUBA, I.P., Cand. Bio Sci--(div.s) "Characteristics of the functional state of the ~~motor~~ ^{vascular} center upon the impairment of vascular tone."
Kiev, 1958. 15 pp. (Acad. Sci USSR. Department of Biolog. Sci), 100 copies. (U. 26-58, 108)

SHURA, M.F.

Functional state of the vasmotor center in hypotension [with
summary in English]. Fiziol. zhur. [Ukr.] 4 no.2:185-195 Mr-Ap
'58. (MIRA 11:5)

1.Institut fiziologii im. O.O. Bogomol'tsya AN URSR.
(CARDIOVASCULAR SYSTEM--INNERVATION) (HYPOTENSION)

SHUBA, M.F.

Some problems in the reflex regulation of vascular tone in anaphylactic shock. Report No. 1: Condition of the pressor reflexes during reduced arterial pressure caused by anaphylactic shock. Biul. eksp. biol. i med. 49 no. 4:52-56 Sp '60.
(MIRA 13:10)

1. Iz laboratorii krovoobrashcheniya i dykhaniya (zav. - deystvitel'nyy chlen AMN SSSR N.N. Gorev) Instituta fiziologii im. A.A. Bogomol'tsa (dir. - chlen-korrespondent AN USSR A.F. Makarchenko) AN USSR, Kiyev.
(ANAPHYLAXIS) (NERVOUS SYSTEM, VASOMOTOR)

SHUBA, M.F.

Physical electrotonus in the smooth muscle. Biofizika 6 no. 1:52-
60 '61. (MIRA 14:2)

1. Institut fiziologii im. A.A. Bogomol'tsa AN USSR, Kiyev.
(MUSCLE) (ELECTROPHYSIOLOGY)

MAGURA, I.S. [Mahura, I.S.]; SHUBA, M.F.; KOSENKO, A.F.

In the Kiev branch of the Ukrainian Physiological Society. Fiziol.
zhur. [Ukr.] 7 no.4:573-574 Jl-Ag '61. (MIRA 14:7)
(ELECTROPHYSIOLOGY) (HYPOTHALAMUS)

SHUBA, M.F.

Effect of adrenaline on the action current and physical electro-tonus of smooth muscles. Fiziol. zhur. [Ukr.] 7 no.5:595-601
S-0 '61. (MIRA 14:9)

1. Laboratoriya elektrofiziologii Instituta fiziologii im. A.A.
Bogomol'tsa Akademii nauk USSR, Kiyev.
(ELECTROPHYSIOLOGY) (ADRENALINE) (MUSCLE)

SHUBA, M.F.

Effect of adrenaline on the physical electrotones of smooth muscles. Fiziol. zhur. 47 no.8:1068-1073 Ag '61. (MIRA 14:8)

1. From the Laboratory of Electrophysiology, A.A.Bogomolets Institute of Physiology, Kiyev,
(MUSCLE) (ADRENALINE) (ELECTROPHYSIOLOGY)

SHUBA, M.F.

Some aspects of the reflex regulation of vascular tonus in anaphylactic shock. Report No.2: Modification of depressor reflexes in lowering arterial pressure caused by anaphylactic shock. Biul. eksp. biol. i med. 51 no.5:41-48 My '61. (MIRA 14:8)

1. Iz laboratorii krovoobrashcheniya i dykhaniya (rukovoditel' - deystvitel'nyy chlen AMN SSSR N.N.Gorev) Instituta fiziologii imeni A.A.Bogomol'tsa (dir. - chlen-korrespondent AN USSR prof. A.F. Makarchenko) AN USSR, Kiyev.
(BLOOD PRESSURE) (ANAPHYLAXIS) (REFLEXES)

SHUBA, M.F.

Effect of metabolism on the physical electrectonus in smooth muscles.
Fiziol. zhur. [Ukr.] 8 no.1:54-61 Ja-F '62. *(MIR 15:2)*

1. Laboratoriya elektrofiziologii Instituta fiziologii im. A.A.
Bogomol'tsa AN USSR, Kiyev.
(MUSCLES) (ELECTROPHYSIOLOGY)
(METABOLISM)

SHUBA, M.F.

Effect of formalin, monoiodoacetate and potassium cyanide on the physical electrotonus of the smooth muscle. Fiziol.zhir. 48 no.12:1511-1516 D '62. (MIRA 16:2)

1. From the Ukrainian S.S.R. Academy of Sciences A.A. Bogomolets Institute of Physiology, Kiyev.
(ELECTROPHYSIOLOGY) (CHEMICALS-PHYSIOLOGICAL EFFECT)
(MUSCLES)

SHUBA, M.F.

Effect of acetylcholine on the physical electrotonus of the smooth muscle. Fiziol. zhur [Ukr.] 8 no.4:449-455 Jl-Ag '62. (MIRA 18:4)

1. Laboratory of Electrophysiology of the A.A.Bogomoletz Institute of Physiology of the Academy of Sciences of the Ukrainian S.S.R., Kiev.

SHUBA, M.F.

Effect of temperature on the physical electrotonus of smooth muscle. Biofizika 8 no.6:699-706 '63. (MIRA 17:7)

1. Institut fiziologii imeni A.A. Bogomol'tsa AN UkrSSR, Kiyev.

SHUBA, M. I.

Effect of some inhibitors of oxidative phosphorylation on the physical electrical tone of smooth muscles. Fiziol. zhur. 49 no. 7:882-885 Jl :63. (MIRA 17:11)

1. From the Laboratory of Electrophysiology, Bogomolets Institute of Physiology, Ukrainian S.S.R. Academy of Sciences, Kiev.

SHUBA, M.F.

Problem of spontaneous activity in the smooth muscles. Fiziol.zhur.
[Ukr.] 9 no.1:48-55 Ja-F '63. (MIRA 18:5)

1. Laboratoriya elektrofiziologii Instituta fiziologii im. A.A.
Bogomol'tsa AN UkrSSR, Kiyev.

SHUBA, M.F.

Electric properties of the smooth muscle. Biofizika 10 no.1:
64-71 '65. (MIRA 18:5)

1. Institut fiziologii imeni Bogomol'tsa AN SSSR, Kiyev.

SHUBA, M.F.

Effect of oxygen, carbon dioxide and nitrogen on the electric properties of the smooth muscle. Fiziol. zhur. [Ukr.] 10 no.2: 156-162 Mr-Ap '64. (MIRA 18:7)

1. laboratoriya elektrofiziologii Instituta fiziologii im. A.A. Bogomol'tsa AN UkrSSR, Kiyev.

ARTEMENKO, D.P.; SHUBA, M.F.

Methodology for studying the electric properties of nerve and muscle fibers by means of surface extracellular electrodes. Fiziol. zhur. [Ukr.] 10 no.3:403-407 My-Je '64. (MIRA 18:9)

1. Laboratoriya elektrofiziologii Instituta fiziologii im. Bogomol'tsa AN UkrSSR, Kiyev.

SHUBA, M.F.

Effect of carbon dioxide and hydrogen ions on the physical
electrotonus of the smooth muscle. Biul.eksp.biol. i med.
59 no.5:19-22 '65. (MIRA 18:11)

1. Laboratoriya elektrofiziologii (zav. - akademik AN UkrSSR
D.S.Vorontsov) Instituta fiziologii imeni A.A.Bogomol'tsa
(direktor - akademik AN UkrSSR A.F.Makarchenko) AN UkrSSR,
Kiyev. Submitted January 9, 1964.

KUSHNIEVSKIY, V.G.; PROLOVA, G.F.; SHURA, N.G.

Possibility of using unprotected explosives in shaft pits unsafe
for methane. Stor. nauch. trud. UkrNIISol' no.7:90-91 '64
(MIRA 18:1)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3

KHUSHELEVSKIY, V.G., SHUBA, N.G.

Investigating the condensate method for controlling salt dust.
Sbor. nauch. trud. UkrNIISol' no.7:91-94 '64 (MIRA 18:1)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3"

ANTIPOV, V.M.; RADCHENKO, V.T.; SHUBA, P.F.

Adopting the KM-87 unit at the "Annenskaja" mine. Ugol' Ukr.
10 no. 1:37-38 Ja '66. (MIRA 18:12)

1. Nachal'nik uchastka shakhty "Annenskaya" (for Antipov).
2. Nachal'nik planovogo otdela shakhty "Annenskaya" (for Radchenko).
3. Zamestitel' glavnogo inzhenera tresta Kadiyevugol' (for Shuba).

BALITSKIY, K. P.; SHUBA, Ye. P.

Rest potential of the cells of transplanted rhabdomyosarcoma.
(MIRA 15:4)
Vop. onk. 8 no.3:72-76 '62.

1. Iz laboratorii patogeneza i patogeneticheskoy terapii (rukov. -
kand. med. nauk K. P. Balitskiy) Ukrainskogo nauchno-issledovatel's-
kogo instituta eksperimental'noy i klinicheskoy onkologii MZ UkrSSR
(dir. - akad. AN UkrSSR R. Ye. Kavetskiy)

(MUSCLES--CANCER)

SOPOTSINSKAYA, Ye.B. [Sopotsyns'ka, O.B.]; SHUBA, Ye.P. [Shuba, E.P.]

Determination of the sodium, potassium and calcium content in tissues by the flame photometry method, Ukr. biokhim. zhur., 37 no.1:151-155 '65. (MIRA 18:5)

1. Laboratory of Pathogenesis and Pathogenetic Therapy of the Ukrainian Research Institute for Experimental and Clinical Oncology of the Ministry of Health of the Ukrainian S.S.R., Kiyev.

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3

SHUBA, Yu. A.

"External Photo Effect From Semiconductors." Cand Phys-Math Sci, Leningrad
State U, Leningrad, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3"

Shuba, Yu. A.

USSR/Electronics - Photoeffect. Electron and Ion Emission, H-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35101

Author: Shuba, Yu. A.

Institution: None

Title: Photoelectronic Emission with CdS

Original

Periodical: Zh. tekhn. fiziki, 1956, 26, No 5, 1129-1135

Abstract: Photoelectron emission with CdS was studied. The spectral and energy distribution of the emitted electrons was obtained. It was established that the curves of the electron energy distribution, emitted by CdS under the influence of radiation at various energies, are almost all equal. The photoelectron emission changes considerably in the presence of the internal photoeffect with the quantum yield in the ultraviolet region of the spectrum changing under the influence of the visible light. The results obtained are explained by the author using the exciton mechanism of the interaction between light and electrons. Bibliography, 12 titles.

Card 1/1

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3

SHUBA, YU. A.

21 21
Photoelectric emission from cadmium sulfide. Yu. A.
Shuba. Soviet Phys. Tech. Phys. 1, 1103-8 (1957) (English
translation).—See C.A. 50, 11807g. R.M.E. *Pls*

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3"

81654

S/181/60/002/06/44/050
B006/B056

24.2600

AUTHORS: Shuba, Yu. A., Smirnova, I. V.

TITLE: Photoelectronic Emission From Copper- and Silver Iodide

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 6, pp. 1321-1322

TEXT: The external photoeffect occurs on pure halides of the elements of the first group of the periodic system in the far ultraviolet. Hitherto, the photoemission from CuI and AgI has been investigated mainly within the longwave range of ultraviolet emission. The authors of the present paper measured the relative spectral distribution of photoemission from CuI and AgI in the shortwave range of from 2600 to 1100 Å. For this purpose, a vacuum monochromator with aluminized replica with diffraction grating (radius of curvature 500 mm) was used. As a radiation source a hydrogen gas discharge lamp with LiF-window (of 1 mm thickness) was used, which allowed a radiation of up to 1050 Å to pass. Photoemission was measured by using the samples to be investigated as photocathodes in open electronic multipliers. The measuring results obtained are shown in a figure (abscissa: photoenergy in ev, ordinate:

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81654

Photoelectronic Emission From Copper- and
Silver Iodide

S/181/60/002/06/44/050
B006/B056

quantum yield in relative units). Uniform rules were observed for all samples. At low energies the quantum yield rises steeply with photon energy (for CuI by more than 6 orders of magnitude). Within the short-wave range a certain saturation sets in. The method of producing the CuI and AgI layers warranted a nearly stoichiometrical ratio of the components. It may be assumed that the photoemission threshold in the layers under investigation corresponds to a photoelectron excitation beyond the lattice boundaries direct from the valency band vortex. With increasing $h\nu$ the number of band levels increases, whose electrons are able to participate in the photoemission, which leads to an increase of the quantum yield. With a further increase of $h\nu$ the level number remains the same if the bottom of the valency band is in a depth of 7.5 ev with respect to the vacuum level, and scattering of electrons on the valency band electrons occurs. There are 1 figure and 6 references: 2 Soviet, 1 German, 1 British, and 1 American.

ASSOCIATION: Opticheskiy institut im. S. I. Vavilova Leningrad
(Optical Institute imeni S. I. Vavilov, Leningrad)

SUBMITTED: September 2, 1959

Card 2/2

84688

S/051/60/009/005/009/019

E201/E191

9.4175

AUTHORS: Tyutikov, A.M., and Shuba, Yu.A.TITLE: Measurement of Weak Photocurrents in Studies of
Photoelectric Emission

PERIODICAL: Optika i spektroskopiya, 1960, Vol.9, No.5, pp 631-634

TEXT: Very weak photocurrents occur in studies of the photoelectric emission spectra near the "red edge" and in the far ultraviolet. The authors describe a method of measuring weak photocurrents (down to several photoelectrons per second) based on the use of an electron multiplier of the open type (Ref. 1), capable of measuring currents down to 10^{-18} A (this multiplier is denoted by 7 in Fig. 1). The photocathode of the multiplier was demountable so that various materials could be studied. The multiplier pulses were counted (the counter is denoted by 10 in Fig. 1). The quantum yield was found as a ratio of the counting rate to the number of quanta in a light flux reaching the photocathode. Light fluxes were found by illuminating a sodium salicylate crystal and measuring the resultant luminescence with a separate photomultiplier, Ф9У-20 (FEU-20) or Ф9У-25 (FEU-25); the photomultiplier is shown as 4 in Fig. 1. The other parts in Card 1/2

84688

S/051/60/009/005/009/019
E201/E191

Measurements of Weak Photocurrents in Studies of Photoelectric Emission

Fig. 1 have the following meanings: (1) a source of light; (2) a monochromator; (3) a reflector used to direct light onto the photomultiplier (4); (5) an instrument used to measure the photomultiplier current; (6) a stabilized power source of the photomultiplier; (8) a rectifier used as a source of voltages up to 5000 V supplied to the electron multiplier (7); (9) a cathode follower; (11) 911-09 (EPP-09). Fig. 2 gives the pulse amplitude distribution at the output of the electron multiplier. The photoemission curves of platinum (curve 1), oxidized beryllium bronze (2), beryllium bronze after a second oxidation (3), strontium fluoride layers (4), and iodine-treated copper (5) are given in Fig. 3 for $\lambda = 1216-5461 \text{ \AA}$. The quantum yields increased with the energy of light waves from about $10^{-14} - 10^{-10}$ at 3 eV to about 10^{-2} at 10 eV. Acknowledgement is made to Academician A.A. Lebedev for his advice and direction of this work. There are 3 figures and 6 references: 4 Soviet and 2 English.

SUBMITTED: February 20 1960

Card 2/2

3331^f
S/560/61, D00/010/008/016
D299/D302

9.6150 (also 1482)

AUTHORS:

Shuba, Yu. A., Tyutikov, A. M., and Sorokin,
O. M.

TITLE:

Photocathodes for studying the short-wave
radiation of the sun

SOURCE:

Akademiya nauk SSSR. Iskusstvennyye sputniki
Zemli. no. 10. Moscow, 1961, 55-60

TEXT: The photocathodes of electron multipliers used in
studying the short-wave radiation of the sun in the range of
1 - 1300 Å ought to satisfy the following requirements: (1) high
stability of spectral characteristics with respect to external
disturbances, (2) high quantum yield for wavelengths shorter
than 1300 Å, (3) low sensitivity in the visible and near-
ultraviolet range, which also ensures that the level of the dark current is low at working temperatures. It is also necessary

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33310
S/560/61/000/010/008/016
D299/D302

Photocathodes for...

that the spectral characteristic of the photocathode should decrease by at least 8 orders of magnitude in the range of 1200 to 4000 Å. The above requirements are met by alkali-halide compounds, halides and oxides of alkali-earth metals. In preparing the photocathodes of metallic oxides, the best results were obtained by surface oxidation of halide compounds and also by using alloys of copper and beryllium and magnesium respectively. Measurement of the photoelectric quantum yield was carried out by a method involving the use of a quartz and a vacuum monochromator. This method ensures sufficient accuracy for quantum yield measurements of up to $10^{-12} - 10^{-14}$ electron/quant. A figure shows the quantum yield for the most stable photocathodes in the spectral region from 850 - 3800 Å. For wavelengths between 1200 - 3800 Å, the cathodes made of MgO and BeO have the steepest slope; the quantum-yield curves for

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S/560/61/000/010/008/016
D299/D302

Photocathodes for...

SrF₂ and CsJ cathodes are fairly even in the long-wave range. The SrF₂-cathode was found to be the more stable. In order to determine the accuracy of measurement of the H L_α-line on the background radiation, the expected counting-rate was estimated by a photocathode with LiF and CaF₂ filters. A figure shows the spectral sensitivity of a detector with MgO-photocathode and LiF and CaF₂ filters, and the expected distribution of the counting-rate. From a table, it is evident that the ratio of the signal (due to the L_α-line) to the total background level equals 7.02 for an MgO-cathode with LiF-filter and 3.21 without the filter. Analogous computations were carried out for BeO, SrF₂ and CsJ photocathodes having the same filters. These photocathodes were studied in the soft X-ray region of the spectrum. It was found that the efficiency of multipliers with

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Photocathodes for...

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D299/D302

MgO and BeO photocathodes is the order of several percent, whereas with CsJ and SrF₂ multipliers it reaches several tens of percent. Conclusions: The use of a MgO or BeO photocathode with adequate filters permits recording (by an electron multiplier) the sun's radiation over a wide range of wavelengths. For greater recording-efficiency of X-rays, photocathodes of SrF₂ and CsJ can be used; but, thereby, the accuracy of determination of the hydrogen line L_α decreases. There are 3 figures, 1 table and 10 references: 8 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: H. Friedman, Trans. Intern. Astr. Un., 10, 706, 1960, Cambridge Univ. Press; W. C. Walkes, N. Wainfan, G. L. Weissler, J. Appl. Phys., 26, 1367, 1955.

SUBMITTED: April 10, 1961

Card 4/4

BLUDOROV, A.P.; TUZOVA, L.S.; SHISHKIN, A.V.; SHURAKOV, G.N.

Lower Carboniferous coal resources of southern Udmurtia. Dokl.AN
SSSR 136 no.5:1168-1171 F '61. (MIRA 14,5)

1. Geologicheskiy institut Kazanskogo filiala AN SSSR. Predstavлено
акад. N.M.Strakhovym.
(Udmurt A.S.S.R.—Coal geology)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3

SHUBALAVA, N.S.

Prejudices and superstitions affect your health. Rab. & sial. 33
no. S;20-21 Ag '57. (MLRA 10:8)
(Quacks and quackery)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001550110014-3"

SHUBALOV, G. I.

S/750/62/000/000/C03/011

AUTHORS: Lipshteyn, R.A., Candidate of Technical Sciences; Avetisyan, A.S., Engineer; Gorbanenko, A.D., Candidate of Technical Sciences; Blagova, T.A., Engineer; Ginzburg, E.S., Shubalov, G.I., Candidates of Technical Sciences.

TITLE: The combustion of Diesel-engine fuels DT-1 (DT-1) and DT-2 (DT-2) and boiler fuel oils M-40 and M-60 in the GTU-(GTU)-600-1,5 gas-turbine powerplant, and preliminary results of test on ash-depcsit and vanadium-corrosion-inhibiting additives.

SOURCE: Bor'ba s korroziyey dvigateley vnutrennego sgoraniya i gazoturbinnikh ustanovok. Vses. sovet nauchn.-tekhn. obshchestv. Moscow. Mashgiz, 1962, 202-218.

TEXT: The physical and chemical characteristics of the 4 fuels (F) tested are detailed in a full-page table. The M-40 F came from the New Kolomenskoye plant. The 1,500-hp industrial gas-turbine (GT) powerplant (PP) (gas turbine-inlet temperature 600°C) was modified, by the addition of fuel preheaters and an increase in fuel-injection pressure to 40 atg (scheme shown), to reduce the viscosity of the M F to a manageable value and render operation on M F comparable to normal operation on DT F. Rough and fine oil-filter management in the presence of pulverized additives (2-3 kg per ton F) is detailed. The centrifugal F nozzles showed no abnormal wear when operated on DT F, but were severely worn when used with high-

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S/750/62/000/000/008/011

The combustion of Diesel-engine fuels...
S M F. Electrolytical application of a boron film on the nozzle surface was somewhat helpful, but not adequate to reduce wear with M F substantially. A consequence of the inadequate spray breakdown of M F (more especially those containing cracking residues) by the mechanical nozzles is the occasional flashing and attachment of relatively large particles onto the comparatively cooler turbine blades. New pneumatic nozzles (cross-section depicted) are being developed to eliminate this "spitting" as well as excessive wear with M F. The combustion chamber remained free of deposits after 3051 hrs on DT F and 2165 hrs on M F (combustion-chamber geometry shown in cross-section). A complete exhaust-gas analysis of the combustion efficiency is tabulated, showing substantially identical efficiency with both grades of F. Turbine blades require thorough removal of deposits about once a month with DT F, once every 24-48 hrs with M F. Most ash deposits occur on the first row of stator blades; ash deposits on the first row of rotor blades are about 75% less, subsequent rows even less. 60-80% of the deposits are hot-water soluble. The washing procedure with hot-water jets, in which the starter motor is employed to rotate the engine at 500 rpm, is described in detail. Additive injectors for both pulverized and liquid additives were constructed and tested (description and cross-section supplied). Addition of CaO increased the service period between washings from 2 to 10 days. Possibilities for further improvement are theoretically analyzed. In the tests described thus far the gas temperatures did not exceed 600°C.

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The combustion of diesel-engine fuels...

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hence there was no V corrosion. A special accessory stand was developed to conduct V-corrosion experiments. Gases at above 900° were captured in the GT P.P. combustion chamber, divided into 3 branch ducts, cooled to pre-established temperatures, and conducted to special test chambers in which metal specimens were exposed to the gas flow at a closely controlled temperature. 100-hour exposure tests were found adequate to assess V corrosion. The setup is schematically illustrated. Even with engine fuel (DT) containing no more than 0.001% V (one-half the limit permitted by current Soviet fuel standards), V corrosion was clearly identifiable. Addition of CaO to DT F eliminated V corrosion in all instances. After 100 hrs operation with M-40 F it was found that at 600°C the metal surface was covered with heavy deposits but was not corroded; at 700° there was significantly lighter coverage of deposits but more intense corrosion; at 800° there were almost no deposits, but the corrosion was so intense that some metal specimens were wholly transformed into corrosion products. There are 6 figures, 4 tables; no references.

ASSOCIATION: None given.

Card 3/3

L 31134-66 EWP(1)/ENT(1)/EWT(m)/EWP(e) RM/WH
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AUTHOR: Berezin, V. I.; Zubov, V. A.; Kats, M. L.; Kovner, M. A.; Sidorov, N. K.; Stal'makhova, L. S.; Sushchinskiy, M. M.; Turbin, Yu. P.; Shabalov, I. K.

ORG: none

TITLE: Intensities and line thresholds of stimulated Raman scattering

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 4, 1966, 351-353

TOPIC TAGS: laser, stimulated emission, Raman scattering, stimulated Raman scattering

ABSTRACT: The relative values for the threshold I for the intensity of the exciting light necessary to attain stimulated Raman scattering in toluene, chlorobenzene, and pyridene have been measured. Using a theory of SRS developed by F. A. Apanasevich and B. I. Stepanov (Zhurnal prikladnoy spektroskopii, v. 1, 1964, p. 202), the authors derived the following formula

$$\frac{I_B}{I} = \left(\frac{I_m}{\delta}\right)_B \nu_{BB}^3 / \nu_B^3 n_B^3 / n^3, \quad (1)$$

where I_m is the integral intensity of the SRS line, δ is the line width, ν_B is the frequency of the scattered light, n is the index of refraction, and the subscript B identifies these quantities for benzene. The experimental values of

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Table 1. Main parameters and oscillation thresholds for SRS

Substance	$\frac{1}{I}$										
benzene	992	13411	1.8	1	1	1.50	1	1	1	1	1
1,3-pentadiene	1655	12748	15	1.6	0.2	1.43	0.5	0.25			
3-methyl-1,3-butadiene	1638	12765	7	1.3	0.3	1.42	0.5	0.40			
carbon disulfide	656	13747	1	1.6	3	1.63	1.6	2.24			
styrene	998	13405	2	0.7	0.6	1.55	0.5	0.55			
styrene	1602	12801	3	0.9	0.6	1.55	0.9	0.59			
styrene	1634	12769	3	1.6	0.9	1.60	0.5	0.42			
toluene	1003	13400	1.6	0.37	0.4	1.52	1	0.78			
chlorobenzene	1002	13401	1	0.45	0.6	1.56	1.1	0.81			
bromobenzene	1001	13402	1	0.50	0.9	1.51	1	0.82			
pyridine	992	13411	1.2	0.46	0.8	1.51	1				

1/I for substances investigated in the present paper and in an earlier paper by three of the authors (Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, 1964, p. 784) are compared with the theoretical values derived by using formula (1) (see Table 1). The value of 1/I for the line $\Delta\nu = 992 \text{ cm}^{-1}$ in benzene was taken to be unity. Since the values of $n(v_g)$ for a ruby laser source were unavailable, the values of n for the D-line of sodium (n_D) were used in the calculations. Orig. art. [CS] has: 17 formulas and 1 table.

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